

## REMARKS/ARGUMENTS

Claims 1-23 are pending in the present application. The Examiner has rejected claims 1-23. Applicant respectfully requests reconsideration of pending claims 1-23.

The Examiner has rejected claims 1-3, 6, 7, 12, 13, 18-20, and 23 under 35 U.S.C. § 102(e) as being anticipated by Posthuma (6,496,566). Applicant respectfully disagrees.

Regarding claim 1, Applicant submits the cited portion of the cited reference fails to disclose the claimed invention as set forth in claim 1. For example, Applicant submits the cited portion of the cited reference fails to disclose "A multi-services access platform, comprising: a chassis that includes: a predetermined number of card slots...." The Examiner cites col. 1, lines 38-51, which refers to FIG. 1. However, Applicant submits neither the description in col. 1, lines 38-51, nor FIG. 1 appear to disclose "...a chassis that includes a predetermined number of card slots...." As another example, Applicant submits the cited portion of the cited reference fails to disclose "...a backplane that includes a metallic test access bus, wherein the metallic test access bus is operable to selectively couple to an input/output port of at least one of the card slots to provide at least one metallic test path." The Examiner cites col. 3, line 66, through col. 4, line 9, which refers to FIG. 2. However, Applicant submits neither the description on col. 3, line 66, through col. 4, line 9, nor FIG. 2 appear to disclose "...a backplane that includes a metallic test access bus...." Thus, Applicant submits claim 1 is in condition for allowance.

Regarding claim 2, Applicant submits the cited portion of the cited reference fails to disclose the claimed invention as set forth in claim 2. For example, Applicant submits the cited portion of the cited reference fails to disclose "wherein a first portion of the metallic test access bus is operable to selectively couple to an input/output port of a first card slot to provide a first metallic test path and a second portion of the metallic test access bus is operable to couple to an input/output port of a second card slot to provide a second metallic test path." Thus, Applicant submits claim 2 is in condition for allowance.

Regarding claim 3, Applicant has presented reasons for allowance of claim 1 from which claim 3 depends. Thus, Applicant submits claim 3 is also in condition for allowance.

Regarding claim 6, Applicant submits the cited portion of the cited reference fails to disclose the claimed invention as set forth in claim 6. For example, Applicant submits the cited portion of the cited reference fails to disclose "wherein the metallic test access bus includes a control portion and a stimulus portion...." Applicant has already argued, with respect to claim 1, that the cited portion of the cited reference fails to disclose "...a backplane that includes a metallic test access bus, wherein the metallic test access bus is operable to selectively couple to an input/output port of at least one of the card slots to provide at least one metallic test path." Applicant notes that the portions of the cited reference cited by the Examiner with respect to claim 6 refer to steps of a flowchart, and Applicant submits such steps do not disclose "wherein the metallic test access bus includes a control portion and a stimulus portion...." Thus, Applicant submits claim 6 is in condition for allowance.

Regarding claim 7, Applicant submits the cited portion of the cited reference fails to disclose the claimed invention as set forth in claim 7. For example, Applicant submits the cited portion of the cited reference fails to disclose "wherein the control portion of the metallic test access bus includes a serial data communication link." Applicant has already argued, with respect to claim 1, that the cited portion of the cited reference fails to disclose "...a backplane that includes a metallic test access bus, wherein the metallic test access bus is operable to selectively couple to an input/output port of at least one of the card slots to provide at least one metallic test path." Applicant notes that the Examiner merely cites "(Fig. 3)" as allegedly disclosing the subject matter of claim 7. However, Applicant notes that "(Fig. 3)" is merely a flowchart, and Applicant submits such flowchart does not disclose "wherein the control portion of the metallic test access bus includes a serial data communication link." Thus, Applicant submits claim 7 is in condition for allowance.

Regarding claim 12, Applicant submits the cited portion of the cited reference fails to disclose the claimed invention as set forth in claim 12. For example, Applicant submits the cited portion of the cited reference fails to disclose "The multi-services access platform of claim 1 further comprises a first line card operably coupled to a first card slot of the predetermined number of card slots, wherein the metallic test access bus is operable to selectively couple to at least one of: an input/output port of the first card slot and an input/output port of the first line card." Applicant has already argued, with respect to claim 1, that the cited portion of the cited reference fails to disclose "...a chassis that includes a predetermined number of card slots..." or "...a backplane that includes a metallic test access bus, wherein the metallic test access bus is operable to selectively couple to an input/output port of at least one of the card slots to provide at least one metallic test path." Applicant further submits that the

portion of the cited reference cited by the Examiner with respect to claim 12 fails to disclose "...wherein the metallic test access bus is operable to selectively couple to at least one of: an input/output port of the first card slot and an input/output port of the first line card." Thus, Applicant submits claim 12 is in condition for allowance.

Regarding claim 13, Applicant submits the cited portion of the cited reference fails to disclose the claimed invention as set forth in claim 13. For example, Applicant submits the cited portion of the cited reference fails to disclose "The multi-services access platform of claim 1 further comprises a test controller within the chassis and operably coupled to the metallic test access bus." Applicant has already argued, with respect to claim 1, that the cited portion of the cited reference fails to disclose "...a backplane that includes a metallic test access bus, wherein the metallic test access bus is operable to selectively couple to an input/output port of at least one of the card slots to provide at least one metallic test path." Applicant notes that the Examiner merely cites "(Fig. 3)" as allegedly disclosing the subject matter of claim 13. However, Applicant notes that "(Fig. 3)" is merely a flowchart, and Applicant submits such flowchart does not disclose "a test controller within the chassis and operably coupled to the metallic test access bus." Thus, Applicant submits claim 13 is in condition for allowance.

Regarding claim 18, Applicant submits the cited portion of the cited reference fails to disclose the claimed invention as set forth in claim 18. For example, Applicant submits the cited portion of the cited reference fails to disclose "issuing control signals on a metallic test access bus included in a backplane of a chassis that includes a predetermined number of card slots...." The Examiner cites col. 4, lines 10-12, which refers to FIG. 3. However, Applicant submits FIG. 3 does not appear to disclose "...a metallic test access bus included in a backplane of a chassis that includes a predetermined number of card slots...." As another example, Applicant submits the cited portion of the cited reference fails to disclose "wherein the control signals operate to selectively couple the metallic test access bus to an input/output port of a first card slot to provide a first metallic test path." Thus, Applicant submits claim 18 is in condition for allowance.

Regarding claim 19, Applicant has presented reasons for allowance of claim 18 from which claim 19 depends. Thus, Applicant submits claim 19 is also in condition for allowance.

Regarding claim 20, Applicant submits the cited portion of the cited reference fails to disclose the claimed invention as set forth in claim 20. For example, Applicant submits the cited portion of the

cited reference fails to disclose “wherein the control signals operate to selectively couple the metallic test access bus to the input/output port of the first card slot to provide the first metallic test path and further operate to selectively couple the metallic test access bus to an input/output port of a second card slot to provide a second metallic test path.” Applicant has already argued, with respect to claim 18, that the cited portion of the cited reference fails to disclose “...a metallic test access bus included in a backplane of a chassis that includes a predetermined number of card slots....” Also, Applicant submits the cited portions of the cited reference fail to disclose “...couple the metallic test access bus to the input/output port of the first card slot to provide the first metallic test path and further operate to selectively couple the metallic test access bus to an input/output port of a second card slot to provide a second metallic test path.” Furthermore, Applicant submits the cited portions fail to disclose “...wherein applying stimulus includes applying first stimulus on the first metallic test path to produce the first response and applying second stimulus on the second metallic test path to produce a second response” or “...wherein measuring includes measuring the first and second responses.” Thus, Applicant submits claim 20 is in condition for allowance.

Regarding claim 23, Applicant submits the cited portion of the cited reference fails to disclose the claimed invention as set forth in claim 23. For example, Applicant submits the cited portion of the cited reference fails to disclose “wherein the control signals are issued over a control portion of the metallic test access bus and the stimulus is applied over a stimulus portion of the metallic test access bus.” Applicant notes the Examiner does not identify “...a control portion of the metallic test access bus...” or “...a stimulus portion of the metallic test access bus....” Rather, the Examiner merely cites “(col. 4 lines 10-51)” as allegedly disclosing all of the features of claim 23. As Applicant noted with respect to claim 18, from which claim 23 depends, Applicant submits FIG. 3 does not appear to disclose “...a metallic test access bus included in a backplane of a chassis that includes a predetermined number of card slots....” Thus, Applicant submits claim 23 is in condition for allowance.

The Examiner has rejected claims 4, 5, and 14 under 35 U.S.C. § 103(a) as being unpatentable over Posthuma (6,496,566) in view of Wachel (6,675,254). Applicant respectfully disagrees.

Regarding claim 4, the Examiner acknowledges, “Posthuma did not suggest wherein the chassis further comprises a connector operably coupled to the backplane, wherein the connector provides access to the metallic test access bus from external to the chassis.” The Examiner merely cites Fig. 3 of Wachel and concludes that “it would have been obvious to one of ordinary skill in the art at the time

the invention was made to incorporate the teaching of Wachel into view of Posthuma in order to provide connectivity.” Applicant respectfully disagrees. Applicant can find nothing in Fig. 3 of Wachel that, even if combined with the teachings of Posthuma, would teach or suggest the features recited in claim 4. For example, Fig. 3 of Wachel “shows a front side add-in card 203” (col. 7, line 18). Applicant submits the “front side add-in card 203” does not disclose “...the chassis further comprises a connector operably coupled to the backplane....” Also, Applicant submits Fig. 3 of Wachel does not disclose “...wherein the connector provides access to the metallic test access bus from external to the chassis.” Therefore, Applicant submits neither of the cited references, either alone or in combination, anticipates or renders obvious the claimed invention as set forth in claim 4. Thus, Applicant submits claim 4 is in condition for allowance.

Regarding claim 5, the Examiner cites “(col. 4 lines 10-51)” of Posthuma. Applicant submits the cited reference, either alone or in combination, fail to disclose or suggest “The multi-services access platform of claim 4 further comprises a test controller operably coupled to the connector, wherein the test controller is operable to provide stimulus over the at least one metallic test path.” Applicant has presented reasons for the lack of disclosure of the cited references with respect to the claims 1 and 4, from which claim 5 depends. As an additional example, Applicant submits neither of the cited references discloses or suggests “a test controller operably coupled to the connector, wherein the test controller is operable to provide stimulus over the at least one metallic test path.” Therefore, Applicant submits neither of the cited references, either alone or in combination, anticipates or renders obvious the claimed invention as set forth in claim 5. Thus, Applicant submits claim 5 is in condition for allowance.

Regarding claim 14, the Examiner acknowledges, “Posthuma did not specifically suggest wherein the predetermined number of card slots is at least 12 card slots.” The Examiner merely cites Fig. 1 of Wachel and concludes that “it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Wachel into view of Posthuma in order to increase circuit density of the rack.” Applicant respectfully disagrees. Applicant can find nothing in Fig. 1 of Wachel that, even if combined with the teachings of Posthuma, would teach or suggest the features recited in claim 14. For example, Applicant cannot observe any features of Fig. 1 of Wachel that would “specifically suggest wherein the predetermined number of card slots is at least 12 card slots.” Accordingly, Applicant submits Wachel effectively provides no additional disclosure with respect to the recited feature than Posthuma. Therefore, Applicant submits neither of the cited

references, either alone or in combination, anticipates or renders obvious the claimed invention as set forth in claim 14. Thus, Applicant submits claim 14 is in condition for allowance.

The Examiner has rejected claim 17 under 35 U.S.C. § 103(a) as being unpatentable over Posthuma (6,496,566) in view of Huang (6,289,293). Applicant respectfully disagrees.

Regarding claim 17, the Examiner acknowledges, "Posthuma did not suggest wherein each of the card slots includes at least 64 input/output ports." The Examiner cites "(col. 1 lines 18-25)" of Huang and concludes "it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Huang into view of Posthuma provide detail structure of the line card." Applicant respectfully disagrees. Applicant can find no teaching as to "card slots" in Huang. Thus, Applicant submits that, even if an attempt were made to combine the teachings of Huang with those of Posthuma, the present invention would not be rendered obvious. Moreover, even the motivation asserted by the Examiner ("provide detail structure of the line card") does not describe "card slots." Accordingly, Applicant submits the Examiner has not shown motivation to combine the teachings of the cited references. Thus, Applicant submits neither of the cited references, either alone or in combination, anticipates or renders obvious the claimed invention as set forth in claim 17. Therefore, Applicant submits claim 17 is in condition for allowance.

The Examiner has rejected claims 8, 9, 15, and 16 under 35 U.S.C. § 103(a) as being unpatentable over Posthuma (6,496,566) in view of "Applicant admitted prior art." Applicant respectfully disagrees.

Regarding claim 8, the Examiner acknowledges, "Posthuma did not clearly suggest wherein the stimulus portion of the metallic test access bus includes at least six conductor pairs. The Examiner cites "(page 9 lines 6-12)" of AAPA and concludes "it would have been obvious to one of ordinary skill in the art at the time the invention was made to acknowledge that the numbers of conductor pairs are based on the standard configuration of the particular system." Applicant respectfully disagrees. The Examiner appears to base the rejection of claim 8 on what the Examiner alleges to be "Applicant admitted prior art." However, the Examiner cites "(page 9 lines 6-12)," which do not involve any sort of admission of prior art, but rather are included within exemplary description of at least one embodiment of the present invention found within the "Detailed Description" of the specification. As "Posthuma did not clearly suggest wherein the stimulus portion of the metallic test access bus includes at least six conductor pairs" and the portion of the specification cited by the Examiner does not include

any admission of prior art, Applicant submits the Examiner has not shown the subject matter of claim 8 to have been anticipated or rendered obvious. Therefore, Applicant submits claim 8 is in condition for allowance.

Regarding claim 9, the Examiner acknowledges, “Posthuma did not clearly suggest wherein the stimulus portion of the metallic test access bus includes at least eight conductor pairs. The Examiner cites “(page 9 lines 6-12)” of AAPA and concludes “it would have been obvious to one of ordinary skill in the art at the time the invention was made to acknowledge that the numbers of conductor pairs are based on the standard configuration of the particular system.” Applicant respectfully disagrees. The Examiner appears to base the rejection of claim 9 on what the Examiner alleges to be “Applicant admitted prior art.” However, the Examiner cites “(page 9 lines 6-12),” which do not involve any sort of admission of prior art, but rather are included within exemplary description of at least one embodiment of the present invention found within the “Detailed Description” of the specification. As “Posthuma did not clearly suggest wherein the stimulus portion of the metallic test access bus includes at least eight conductor pairs” and the portion of the specification cited by the Examiner does not include any admission of prior art, Applicant submits the Examiner has not shown the subject matter of claim 9 to have been anticipated or rendered obvious. Therefore, Applicant submits claim 9 is in condition for allowance.

Regarding claim 15, the Examiner acknowledges, “Chong did not clearly suggest wherein the dimensions of the chassis are each within three inches of standard dimensions. The Examiner cites “(page 6 lines 14 – page 7 line 6)” of AAPA and concludes “it would have been obvious to one of ordinary skill in the art at the time the invention was made to recognize that a particular chassis must be within certain dimension in order to comply with the standard requirement.” Applicant respectfully disagrees. The Examiner refers to “Chong,” which contradicts the Examiner’s statement in the first paragraph of section 6 that “Claims 8-9 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Posthuma (6,496,566) in view of Applicant admitted prior art.” Also, the Examiner appears to base the rejection of claim 15 on what the Examiner alleges to be “Applicant admitted prior art.” However, the Examiner cites “(6 line 14 – page 7 line 6),” which do not involve any sort of admission of prior art, but rather are included within exemplary description of at least one embodiment of the present invention found within the “Detailed Description” of the specification. As “Chong did not clearly suggest wherein the dimensions of the chassis are each within three inches of standard dimensions” and the portion of the specification cited by the Examiner does not include any admission

of prior art, Applicant submits the Examiner has not shown the subject matter of claim 15 to have been anticipated or rendered obvious. Therefore, Applicant submits claim 15 is in condition for allowance.

Regarding claim 16, the Examiner acknowledges, “Chong did not suggest wherein the dimensions of the chassis are not greater than approximately 18 inches wide, 22 inches tall, and 12 inches deep.” The Examiner cites “(page 6 lines 14 – page 7 line 6)” of AAPA and concludes “it would have been obvious to one of ordinary skill in the art at the time the invention was made to recognize that a particular chassis must be within certain dimensions in order to comply with the standard requirement.” Applicant respectfully disagrees. The Examiner refers to “Chong,” which contradicts the Examiner’s statement in the first paragraph of section 6 that “Claims 8-9 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Posthuma (6,496,566) in view of Applicant admitted prior art.” The Examiner appears to base the rejection of claim 16 on what the Examiner alleges to be “Applicant admitted prior art.” However, the Examiner cites “(6 line 14 – page 7 line 6),” which do not involve any sort of admission of prior art, but rather are included within exemplary description of at least one embodiment of the present invention found within the “Detailed Description” of the specification. As “Chong did not suggest wherein dimensions of the chassis are not greater than approximately 18 inches wide, 22 inches tall, and 12 inches deep” and the portion of the specification cited by the Examiner does not include any admission of prior art, Applicant submits the Examiner has not shown the subject matter of claim 16 to have been anticipated or rendered obvious. Therefore, Applicant submits claim 16 is in condition for allowance.

The Examiner has rejected claims 10, 11, 21, and 22 under 35 U.S.C. § 103(a) as being unpatentable over Posthuma (6,496,566) in view of Latu et al. (6,757,386). Applicant respectfully disagrees.

Regarding claim 10, the Examiner acknowledges, “Posthuma did not clearly suggest wherein the stimulus conveyed includes at least one of a Safety Extra Low Voltage (SELV) rated stimulus and a Telecom Network Voltage (TNV) rated stimulus.” The Examiner cites “(col. 5 line 26 – col. 6 line 19) of Latu et al. and concludes “it would be obvious to one of the ordinary at the time the invention was made to recognize such test signals are need in order prevent damage to sensitive circuits.” Applicant respectfully disagrees. Applicant notes Latu et al. is not directed to testing, but to reduction of electromagnetic interference. Thus, Applicant submits Latu et al. is non-analogous art. Moreover, Applicant submits the Examiner’s alleged motivation “in order to prevent damage to sensitive circuits” is incongruous with the application of an alleged teaching of a reference pertaining to reduction of



electromagnetic interference to an alleged teaching of a reference pertaining to testing input-output ports. Thus, Applicant submits neither of the cited references, either alone or in combination, anticipate or render obvious the claimed invention as set forth in claim 10. Therefore, Applicant submits claim 10 is in condition for allowance.

Regarding claim 11, the Examiner cites “(col. 2 line 55-61; col. 3 lines 48-60; col. 4 lines 1-9)” of Posthuma as teaching subject matter of claim 11. Applicant respectfully disagrees. Applicant notes Latu et al. is not directed to testing, but to reduction of electromagnetic interference. Thus, Applicant submits Latu et al. is non-analogous art. Moreover, Applicant submits the Examiner’s alleged motivation “in order to prevent damage to sensitive circuits” is incongruous with the application of an alleged teaching of a reference pertaining to reduction of electromagnetic interference to an alleged teaching of a reference pertaining to testing input-output ports. Also, the Examiner alleged “in order to prevent damage to sensitive circuits” as motivation for combining the teachings of the cited references. However, the Examiner fails to explain motivation for conveying “the SELV rated stimulus to the input/output port of the first card slot” and “the TNV rated stimulus to the input/output port of the second card slot.” Thus, Applicant submits neither of the cited references, either alone or in combination, anticipate or render obvious the claimed invention as set forth in claim 11. Therefore, Applicant submits claim 11 is in condition for allowance.

Regarding claim 21, the Examiner acknowledges, “Posthuma did not suggest wherein the first stimulus is a Safety Extra Low Voltage (SELV) rated stimulus and the second stimulus is a Telecom Network Voltage (TNV) rated stimulus.” The Examiner cites “(col. 5 line 26 – col. 6 line 19) of Latu et al. and concludes “it would be obvious to one of the ordinary at the time the invention was made to recognize such test signals are needed in order to prevent damage to sensitive circuits.” Applicant respectfully disagrees. Applicant notes Latu et al. is not directed to testing, but to reduction of electromagnetic interference. Thus, Applicant submits Latu et al. is non-analogous art. Moreover, Applicant submits the Examiner’s alleged motivation “in order to prevent damage to sensitive circuits” is incongruous with the application of an alleged teaching of a reference pertaining to reduction of electromagnetic interference to an alleged teaching of a reference pertaining to testing input-output ports. Also, the Examiner alleged “in order to prevent damage to sensitive circuits” as motivation for combining the teachings of the cited references. However, the Examiner fails to explain motivation for “wherein the first stimulus is a Safety Extra Low Voltage (SELV) rated stimulus and the second stimulus is a Telecom Network Voltage (TNV) rated stimulus,” “wherein applying stimulus includes

applying first stimulus on the first metallic test path to produce the first response and applying second stimulus on the second metallic test path to produce a second response.” Thus, Applicant submits neither of the cited references, either alone or in combination, anticipate or render obvious the claimed invention as set forth in claim 21. Therefore, Applicant submits claim 21 is in condition for allowance.

Regarding claim 22, the Examiner acknowledges, “Posthuma did not suggest wherein the stimulus is one of a Safety Extra Low Voltage (SELV) stimulus and a Telecom Network Voltage (TNV) stimulus.” The Examiner cites “(col. 5 line 26 – col. 6 line 19) of Latu et al. and concludes “it would be obvious to one of the ordinary at the time the invention was made to recognize such test signals are needed in order to prevent damage to sensitive circuits.” Applicant respectfully disagrees. Applicant notes Latu et al. is not directed to testing, but to reduction of electromagnetic interference. Thus, Applicant submits Latu et al. is non-analogous art. Moreover, Applicant submits the Examiner’s alleged motivation “in order to prevent damage to sensitive circuits” is incongruous with the application of an alleged teaching of a reference pertaining to reduction of electromagnetic interference to an alleged teaching of a reference pertaining to testing input-output ports. Thus, Applicant submits neither of the cited references, either alone or in combination, anticipate or render obvious the claimed invention as set forth in claim 22. Therefore, Applicant submits claim 22 is in condition for allowance.

In conclusion, Applicant has overcome all of the Office’s rejections, and early notice of allowance to this effect is earnestly solicited. If, for any reason, the Office is unable to allow the Application on the next Office Action, and believes a telephone interview would be helpful, the Examiner is respectfully requested to contact the undersigned attorney.

Respectfully submitted,

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Date



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